

REMARKS

Claims 5, 8, 9, 11-16, 20 and 23 are pending in the application.

Initially, it is respectfully requested that the Examiner has not returned a copy of the signed and initialed PTO/SB/08 A & B (modified) filed with the IDS on September 11, 2009.

I. Response to Rejection of Claims 5, 8-9, 20 and 23 under 35 U.S.C. § 103(a)

Claims 5, 8-9, 20 and 23 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Terada et al. (WO 03/052045).

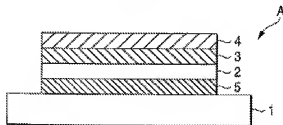
Applicants respectfully traverse the rejection.

Claim 5 is directed to a carrying member with a cleaning function, comprising a carrying member and a cleaning sheet comprising a support, a cleaning layer provided on one side of the support, an adhesive layer provided on the other side of the support, and a releasable protective film laminated on the cleaning layer. The cleaning layer comprises a polyimide resin which is heat-resistant, and a releasable protective film laminated on the cleaning layer, wherein each of the relative intensities of the fragment ions of CH_3Si^+ , $\text{C}_3\text{H}_9\text{Si}^+$, $\text{C}_5\text{H}_{15}\text{Si}_2\text{O}^+$, $\text{C}_5\text{H}_{15}\text{Si}_3\text{O}_3^+$, $\text{C}_7\text{H}_{21}\text{Si}_3\text{O}_2^+$, CH_3SiO^- , $\text{CH}_3\text{SiO}_2^-$ and Si^+ in the cleaning layer, when the protective film is peeled off the cleaning layer, is 0.1 or less according to time-of-flight secondary ion mass spectrometry, relative to C_2H_3^+ in the case of positive ion or O^- in the case of negative ion, wherein the cleaning layer has a tensile modulus of 10 MPa or more as determined according to JIS K7127 and exhibits an adhesive strength of 0.2N/10 mm width or less when peeled off a silicon wafer at an angle of 180° as determined according to JIS Z0237. The cleaning sheet is laminated on the carrying member through an adhesive layer, wherein the carrying member is a semiconductor wafer or base for a flat panel display, and wherein the releasable protective film is a polyolefin-based film comprising polyethylene, polypropylene, polybutene,

polybutadiene or polymethylpentene.

Terada discloses a label sheet A in Fig. 2 where 1) separator; 2) backing; 3) cleaning layer; 4) release film; and 5) ordinary adhesive layer.

FIG. 2



The Examiner asserts that Terada teaches a backing for the cleaning layer, one of which is made of polyimide, which may also read as the cleaning layer. Hence, the backing of Terada, made up of polyimide is construed to read on both the backing and cleaning layer of the present claims. The "cleaning layer" of Terada then would be another layer which is not excluded from the "comprising" language of the present claims.

Applicants respectfully submit that Terada does not disclose the claimed material for the cleaning layer, and thus a *prima facie* case of obviousness has not been established.

First, the Examiner provides no rational basis as to how or why the polyimide backing also reads on the cleaning layer of claim 1. Terada discloses its cleaning layer and backing layer as *two separate components*. In this regard, Terada discusses the cleaning layer and its properties in detail. For example, Terada discloses that it is preferred that the cleaning layer of Terada has a tensile modulus of 10 MPa or more and that the cleaning layer exhibit a 180° peel adhesion of 0.2 N/10 mm or less with respect to a silicon wafer according to JIS Z0237. See page 31, lines 6-7 and page 27, lines 13-16.

Regarding the backing, there is no disclosure in Terada that the polyimide can be used as

a cleaning layer or that it possesses the properties desired in the cleaning layer.

Second, the Examiner asserts that the backing of Terada is the claimed cleaning layer and claimed support. Claim 1 clearly recites two separate elements, the cleaning layer possessing certain properties and the support. For obviousness, *every element* must be taught or suggested by the prior art. In this case, Terada teaches a polyimide backing, but clearly fails to teach the claimed cleaning layer. Thus, it is submitted that there is no basis for the Examiner to assert that the backing corresponds to both the claimed cleaning layer and claimed support.

Third, the Examiner appears to be improperly reading the prior art in an attempt to meet the elements of the claim. It is submitted that impermissible hindsight *must be avoided* and the legal conclusion must be reached on the basis of the facts gleaned from ***the prior art***.

In addition, Terada fails to teach or suggest that the polyimide possesses the claimed properties of the cleaning layer and the Examiner has not provided any evidence that the properties are inherent in the polyimide backing layer. *See* MPEP 2112.IV ("to establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill).

Furthermore, since Terada discloses that cleaning layer is not specifically limited, there is no reason why one of ordinary skill in the art would arrive at the use of polyimides. Particularly, when polyimides are only disclosed as materials for the backing. An obviousness rejection cannot be sustained with mere conclusory statements; instead, there must be some ***articulated reasoning with some rational underpinning*** to support the legal conclusion of obviousness. In this case, the Examiner simply concludes that one of ordinary skill in the art

would use polyimide and has failed to set forth a reason as to why such would be the case as required for an obviousness rejection.

For at least the above reasons, it is submitted that Terada fails to teach or suggest every element of claim 1.

Regarding the claimed properties, Terada does not expressly disclose that each of the relative intensities of the fragment ions of CH_3Si^+ , $\text{C}_3\text{H}_9\text{Si}^+$, $\text{C}_5\text{H}_{15}\text{Si}_2\text{O}^+$, $\text{C}_5\text{H}_{15}\text{Si}_3\text{O}_3^+$, $\text{C}_7\text{H}_{21}\text{Si}_3\text{O}_2^+$, CH_3SiO^- , $\text{CH}_3\text{SiO}_2^-$ and Si^+ in the cleaning layer, when the protective film is peeled off the cleaning layer, is 0.1 or less according to time-of-flight secondary ion mass spectrometry, relative to C_2H_3^+ in the case of positive ion or O^- in the case of negative ion. Since Terada does not disclose, teach or suggest the use of a polyimide layer, one of ordinary skill in the art would not expect the cleaning layer of Terada to possess the claimed feature.

In view of the above, it is respectfully submitted that claims 5 and 8 are patentable over Terada.

Further, claims 9, 20 and 23 depend from claim 5 or claim 8, and thus it is respectfully submitted that these claims are patentable for at least the same reasons.

In view of the above, withdrawal of the rejection is respectfully requested.


II. Conclusion

In view of the above, reconsideration and allowance of claims 5, 8-9, 20 and 23 is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Keiko K. Takagi
Registration No. 47,121

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON DC SUGHRUE/2655550

65565

CUSTOMER NUMBER

Date: December 1, 2009